

RESOURCE MANAGEMENT CONFIDENCE TEST - EOC5

The capability to manage and monitor the configuration of the EOC includes configuring the EOC resources for multi-mission support, facilitating operational failure recovery during real-time contacts, and managing the real-time interface with the NCC. The logical strings are controlled for telemetry monitoring and command- i.e., they enable FOS users to receive and monitor telemetry from one or more spacecraft and one or more instruments. In addition, requests from a Command Activity Controller for command authority and a Ground Controller for Ground Control authority are received. The privilege is granted to authenticated users, and ensures that only one person has command authority for a single spacecraft at any one time.

Test Objectives:

The Resource Management Confidence Test will:

- demonstrate the ability to shift displays between various rooms and pages
- verify the ability to assign key functions such as command activity controller and ground controller to various workstations
- verify the ability to protect privileged operations, such as commanding
- configure and de-configure logical processing strings
- demonstrate the ability to failover to redundant or standby elements.

Test Configuration:

Exhibit EOC5-1 illustrates the Resource Management Test configuration with ETS and SSIM. Since the functions of Resource Management are internal to the EOC the AM-1 spacecraft is not required for this test.

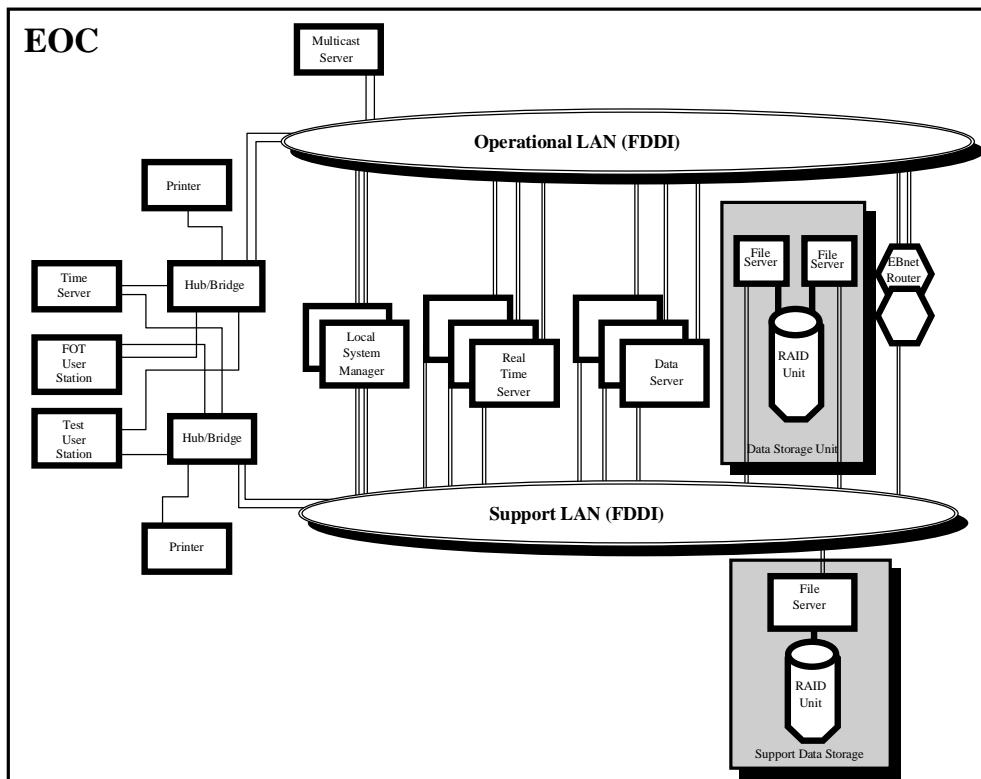


EXHIBIT EOC5-1: Resource Management Confidence Test Configuration

Participants and Support Requirements:

Participants:

- EDOS M&O
- ETS MPS Operator
- I&T Test Conductor

Communications:

1. Voice -
 - CCL between EOC and ETS MPS
2. Data -
 - EBnet circuit between EOC to EDOS LZPF
 - EBnet circuit between EDOS LZPF to ETS MPS

Equipment and Software:

Hardware

- Multicast Server (3)
- Local System Manager (2)
- Real-Time Server (2)
- Data Server (2)
- File Server (3)
- RAID Unit (1)
- Laser Printer (4)
- Line Printer (4)
- Color Printer (4)
- FDDI Hub/Bridge (2)
- Time Server (2)
- FOT User Workstation (36)
- EOC Router (2)
- EBnet Router (2)
- Operational LAN (FDDI)
- Support LAN (FDDI)

Software

- Resource Management Subsystem
- Data Management Subsystem
- User Interface Subsystem
- Telemetry Subsystem
- Command Subsystem
- Real-time Contact Subsystem

Test Tools:

- ETS MPS

Test Data:

Description/Characteristics	Source	File/Script Name & Location
<p>Housekeeping telemetry.</p> <p>AM-1 real-time data in CCSDS telemetry (TLM) packets in the form of Path Service EDUs (one of each TLM value bit size - 1, 8, 16, 32, 48; representative set of both discrete and analog parameters):</p> <ul style="list-style-type: none">• S/C bus and instrument H/K telemetry data (16 kbps, APID = 1, VCID = 1)		

Procedures:

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
1.001	EOC	If the Data Server (DS) and Real Time Server (RTS) are running, skip to step 21 to start a User Work Station (UWS).				3/12/97
1.002	EOC	Log onto an EOC console (mssec2) as IVVTEST. Enter password.	UNIX Terminal window(s) open. Preferably bring up the Data Server and Real Time Server on a console that will not be used as a user workstation during the test. Note: Startup and shutdown procedures can be found in the Operations Tools Manual page 4-3. Use of mssec2 is for consistency; operationally it will be used for LSM not as a Userstation.			3/12/97
1.003	EOC	Open SUN workstation room 2 (of 4). Click on button labeled Two.	UNIX Terminal window(s) open. Note: Use of 2nd & 3rd rooms are for organizational purposes only, it is not a required configuration.	Open a UNIX terminal window if none open.		3/12/97
1.004	EOC	Bring up the FOS Homepage on Netscape: netscape	FOS Database Access Page displayed. If not automatically displayed, check Netscape for a bookmark. If no bookmark enter the			3/12/97

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			url: http://198.118.199.20/FosDbHome.html			
1.005	EOC	Verify no endpoints exist:Click on Nameserver DatabaseClick on Clear FormClick on Submit.	"Total matches = 0". Note: If any endpoints exist watch for live processes/endpoints on the Data Server, Real Time Server, and on User Stations in the following steps. They must all be removed/killed prior to system startup.			3/12/97
1.006	EOC	Open SUN workstation room 1 (of 4).Click on button labeled One.	UNIX Terminal window(s) open.Note: Use of 1st & 2nd & rooms are for organizational purposes only, it is not a required configuration. Also, Data Server and Real Time Server may be started from different consoles.	Open two UNIX terminal windows if none open.		3/12/97
1.007	DS	Remote login to the Data Server (foseoc7):rlogin foseoc7/enter your "password" (used in step 1)	Successful login to Data Server.			3/12/97
1.008	DS	Change directory and check for live processes.test (or cd /fos/test/aml/scripts/setup ps -ef	Current processes will be displayed along with owner. Note: "ps -ef" truncates the process path/name. Use "ps -ax" to see process name	Path may be aliased as "test"		3/12/97
1.009	DS	Kill all undesirable processes - Processes with	Notes: "kill -USR1" saves data created since the Data			3/12/97

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		a /fos/test/am1/bin/... prefix and owner is not "root" (there may be others).Initially, as process owner, use MyKill to shutdown the process. If processes are still active use kill -USR1 "pid" for each active process, then use kill -9 "pid" for each undesirable process.Type ps -ef again to verify.	Server was brought up. Use "kill -9" only after "kill -USR" on the Data Server or Real Time Server; or data may be lost. The user may need to be logged in as the owner of the processes in order to kill them.			
1.010	RTS	From the 2nd UNIX window in room 1, remote login to the Real Time Server (foseoc6):rlogin foseoc6enter your "password" (same as in step 1)	Successful login to Real Time Server.		3/12/97	
1.011	RTS	Change directory and check for live processes.test (or cd /fos/test/am1/scripts/setup) ps -ef	Current processes will be displayed along with owner and process id.		3/12/97	
1.012	RTS	Kill all undesirable processes - Processes with a /fos/test/Am1/bin/... prefixInitially, as process owner, use MyKill to shutdown the process. If processes are still active use kill -USR1 "pid" for each active process, then			3/12/97	

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		use kill -9 "pid" for each undesirable process.Type ps -ef again to verify.				
1.013	DS	At the Data Server (foseoc7), source the A2_DataServerStartup shell script from directory: /fos/test/am1/scripts/setup.sourceforge A2_DataServerStartup	The script will take 1-5 minutes to complete.		3/12/97	
1.014	DS	Observe in the UNIX window:"Successful installation of signal handler FpLQSigHand", and repeating "Waiting for activity"	If this message is not displayed, first wait a little longer, while waiting check the number of processes on the Data Server via netscape (next step). Most likely cause of failure is the presence of processes/endpoints prior to startup of Data Server. If unsuccessful startup, type MyKill, in Data Server's UNIX window, recheck for processes on all servers, and restart.		3/12/97	
1.015	EOC	From Netscape in SUN workstation room 2, verify that 14 endpoints are now found by submitting a blank form.BackSubmit	The number of endpoints found is 14.Using "ps -ax" 18 processes are active.If the number of endpoints does not equal 14, be sure startup has completed, if so, use MyKill to clean out all processes. Restart from		3/12/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
1.016	RTS	At the Real Time Server (foseoc6) in SUN workstation room 1, source the A2_RealTimeServerStartup shell script from directory: /fos/test/am1/scripts/setup.sourceforge A2_RealTimeServerStartup	step 4.	The script will take 2- 5 minutes to complete.		3/12/97
1.017	RTS	Observe in the UNIX window:For FOS version A.2P7:"DECOM IS READY TO RECEIVE I CHANNEL PACKETS..." and "DECOM IS READY TO RECEIVE Q CHANNEL PACKETS..."For FOS version A.2P7+ECT1 patch (aka 1.1.0d):"Creating a pptp coupler"	Note: The DECOM messages will appear several times, wait until they appear on two consecutive lines. (1.1.0d wait for "Creating a pptp coupler")There should not be any FORMAT Problem: xxx -socket error'. This is an indication that endpoints existed prior to startup.	The completion status and endpoint count are subject to change.		3/12/97
1.018	EOC	From Netscape in the SUN workstation room 2, verify that 48 endpoints are now found by submitting a blank form.BackSubmit	The number of endpoints found is 48.If the number of endpoints does not equal 48, be sure startup has completed, if so, use MyKill to clean out all Real Time Server (RTS) processes. Use Netscape with "foseoc6" in the "Entry ID" field to verify 0 endpoints on RTS. Use "ps			3/12/97

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			-ef" to check for undesirable processes. Restart RTIS.			
1.019	EOC	Leave Data Server and Real Time Server windows open to view statuses.			3/12/97	
1.020	EOC	If the console will be used as a User workstation, close Netscape.	Warning: Netscape and the Event_Display window can not be open at the same time (12/05/96).		3/12/97	
1.021	UWS	Log onto an EOC User Work Station (preferably not msseoc2).Enter your user name.Enter your password.	UNIX Terminal window(s) open.	UNIX Terminal window(s) open.	3/12/97	
1.022	UWS	Change directory and check for live processes.test (or cd /fos/test/am1/scripts/setup) ps -aux	Current processes will be displayed along with owner. There should be no undesirable processes. If so, run MyKill as owner of processes. Then attempt 'kill pid#'. Only use 'kill -9' is a last resort.		3/12/97	
1.023	UWS	Source the A2_UserStationStartup shell script from directory: /fos/test/am1/scripts/setup.s ource A2_UserStationStartup	The script will take 3 - 5 minutes to complete.The following six planning and scheduling windows will open: -Load Generator -Activity Definer -BAP Definer -Load_Manager -EOS Timeline -General Scheduler.A Control Window will open		3/12/97	

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1.024	UWS	Iconize the 6 planning and scheduling windows.	If there are not 6 planning and scheduling icons and the Control Window, first wait a little longer; while waiting check the number of processes on the user station via netscape (enter console name in "Entry ID" field. Correct number of user station endpoints is 8 ?) If unsuccessful startup, type MyKill, in user Station's UNIX window, kill undesirable processes, and restart user station only. If still unsuccessful call for help, you'll probably perform a complete shutdown and restart!	last.Netscape endpoint count at this point is 57.		3/12/97
1.025	UWS	Bring up Event_Display window.Click on "Tools..." button in Control Window,select Event_Display, and OK.	Event_Display may take a few minutes to appear.			3/12/97
1.026	UWS	Issue the ECL directive to connect to string 100:STRING CONNECT STRING=100 TLMTYPE=ALL CONFIG=MIRROR	Event message: "Successfully connected to String 100." Approximately a 7 minute wait.			3/12/97
1.027	UWS	From a UNIX window,	This can be done while			3/12/97

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		different from the window used for User startup, run the SI&T userstation configuration recording script: /home/ivvtest3/scripts/tconfig.scr	waiting for the string to connectCreates a file called testconfig.			
1.028	UWS	From the UNIX window, rename the testconfig file.Mv testconfig <newname>			3/12/97	
1.029	UWS	Record the system configuration on the execution cover sheet.	System configuration recorded (while waiting for the string to connect).		3/12/97	
1.030	UWS	Enable telemetry data archiving.Note: Release A: Archiving is already enabled. Release B: The ECL directive ARCHIVE will control the archiving modes: ARCHIVE TLM =ENABLE <tlm TYPE>	For Release A, no event message is expected. For Release B, an event message stating that telemetry archiving is enabled.		3/12/97	
2.001	~	From the Control Window - MAIN Room, create new dynamic pages via the Display Builder (Alphanumeric display, Table, 2D Graph, 3D Graph).			3/12/97	
2.002	USER1	Start Display Builder (DB) via menu selections.Tools,Display_Builder (Double-click)	Display Builder displayed	OTM section 7.9		3/12/97

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2.003	~	Associate logical string(s) via the Data Source Management Dialog window for an alphanumeric list page.	Logical strings associated with new page.	need to identify types of strings based on available data.		3/12/97
2.004	~	The following items will be added to the dynamic page: Ground Parameters:1.SDU_SCTIM E2.SDU_PCKT_SEQ3.SD U_PCKT_APIDHousekeeping Parameters:3.EPS_SR_SA_RAT_ADJ_A (Formatted, Hex, Octal, Binary, and Scientific Notation)4.GNC_TR_ST1_CCD (Formatted, Hex, Octal, Binary, and Scientific Notation)Health & Safety Parameters:5.EPS_VR_BB_AT_VA (Formatted, Hex, Octal, Binary, and Scientific Notation)6.CDH_NR_SSR_2_HKRECTR (Formatted, Hex, Octal, Binary, and Scientific Notation)	Items will be displayed in dynamic page and updated by tlm data.	Tlm data supported by EOC1 MPS tlm script.		3/12/97
2.005	USER1	Click the Label button in the D_B Palette window. Drag the field onto the D_B Dynamic Page, near	A label box outline is displayed on the D_B Dynamic Page.	Header Label		3/12/97

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		the top and click to place the label.				
2.006	USER1	Click the Separator button in the D_B Palette window. Drag the field onto the D_B Dynamic Page. Place under the Label box and click to place the field.	Inserts a horizontal separator.			3/12/97
2.007	USER1	Click the Field button in the D_B Palette window. Drag the field onto the D_B Dynamic Page. Place under the Separator box and click to place the field.	A field box outline is displayed on the D_B Dynamic Page underneath the Label box..	SDU_SCTIME		3/12/97
2.008	USER1	Click the Field button in the D_B Palette window. Drag the field onto the D_B Dynamic Page, under the previous Field and click to place the field.	Two field box outlines are displayed on the D_B Dynamic Page underneath the Label box.	SDU_PCKT_SEQ		3/12/97
2.009	USER1	Click the Field button in the D_B Palette window. Drag the field onto the D_B Dynamic Page, under the previous Field and click to place the field.	Three field box outlines are displayed on the D_B Dynamic Page underneath the Label box.	SDU_PCKT_APID		3/12/97
2.010	USER1	Click the Label button in the D_B Palette window. Drag the field onto the D_B Dynamic Page, under the last Field and click to place the label.	A label box outline is displayed on the D_B Dynamic Page.	Housekeeping Label		3/12/97
2.011	USER1	Click the Separator button	Inserts a horizontal			3/12/97

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		in the D_B Palette window. Drag the field onto the D_B Dynamic Page. Place under the Label box and click to place the field.	separator.			
2.012	USER1	Generate 10 field boxes underneath the second Separator field. Repeat the following two steps 10 times:Click the Field button in the D_B Palette window. Drag the field onto the D_B Dynamic Page and click to place the field.	Ten field box outlines are displayed on the D_B Dynamic Page.	EPS_VR_BBAT_VA Formatted		3/12/97
2.013	USER1	Click the Label button in the D_B Palette window. Drag the field onto the D_B Dynamic Page, under the last Field and click to place the label.	A label box outline is displayed on the D_B Dynamic Page.	Health & Safety Label		3/12/97
2.014	USER1	Click the Separator button in the D_B Palette window. Drag the field onto the D_B Dynamic Page. Place under the third Label box and click to place the field.	Inserts a horizontal separator.			3/12/97
2.015	USER1	Generate 10 field boxes underneath the third Label field. Repeat the following two steps 10 times:Click the Field button in the D_B Palette window. Drag the field onto the D_B	Ten field box outlines are displayed on the D_B Dynamic Page.	EPS_VR_BBAT_VA Formatted		3/12/97

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		Dynamic Page and click to place the field.				
2.016	USER1	Click the Separator button in the D_B Palette window. Drag the field onto the D_B Dynamic Page. Place under the last box and click to place the field.	Inserts a horizontal separator.		3/12/97	
2.017	USER1	Edit the last Separator field to change to a vertical separator. Set X to: 420 Set Y to: 0 Set Width to: 8 Set Height to: 600 Click Horizontal/Vertical box, and select Vertical Click Apply.	A vertical separator appears to the right of the parameters, extending the length of the display.		3/12/97	
2.018	~	Associate parameters with display items via the Data Source Dialog window.		ref:609pg7-11	3/12/97	
2.019	USER1	Highlight the first field. From the Edit menu of the Palette window select Logical String Management.	Dynamic Page Data Sources window appears.		3/12/97	
2.020	USER1	On the Dynamic Page Data Sources window select the following 4 options: AM1Real-timeOperationalDefault.Click Add, Click OK.		No documentation available. FUI2060	3/12/97	
2.021	~	Create the filters of desired commands.		FUI2060	3/12/97	

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2.022	USER1	From the Display Item Data Source window click Add.	Display Item Parameter Picker window appears.			3/12/97
2.023	USER1	From the Display Item Parameter Picker window click the Filter button.	Selection Filter window appears.			3/12/97
2.024	USER1	Select the following filtering items in the appropriate boxes, then click on Select for each. AM1 SDUAM1 EPS SAM1 EPS VAM1 GNC TAM1 CDH NClick OK.	Filter window closes and the filter selections appear in the Display Item Parameter Picker			3/12/97
2.025	~	Enter the parameters onto the D_B Dynamic Page.	FUI2060 step 14.			3/12/97
2.026	USER1	Click the button for the filter selection AM1_SDU.	A list of filtered commands appear in the list box.			3/12/97
2.027	USER1	Select SDU_SCTIME and click the right arrow button. Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.	Actual parameter selections may vary depending on EOC1 MPS scenario parameter.		3/12/97
2.028	USER1	Select the second field in the D_B Dynamic Page.	Second field highlighted.			3/12/97
2.029	USER1	From the Display Item Data Source window click Add.	Display Item Parameter Picker window appears.			3/12/97
2.030	~	Deselect the 1st parameter from the selection box.		FUI2060 step 17. Is there an NCR that this selection should clear automatically?		3/12/97
2.031	USER1	Select SDU_SCTIME and click the left arrow button.	Parameter clears.			3/12/97
2.032	~	Select Parameter 2 for Field 2.				3/12/97

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2.033	USER1	Select SDU_PCKT_SEQ and click the right arrow button. Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.034	USER1	Select the third field in the D_B Dynamic Page.	3rd field highlighted.			3/12/97
2.035	USER1	From the Display Item Data Source window click Add.	Display Item Parameter Picker window appears.			3/12/97
2.036	~	Deselect the 2nd parameter from the selection box.	FUI2060 step17. Is there an NCR that this selection should clear automatically?			3/12/97
2.037	USER1	Select SDU_PACKET_SEQ and click the left arrow button.	Parameter clears.			3/12/97
2.038	~	Select Parameter 3 for Field 3.				3/12/97
2.039	USER1	Select SDU_PCKT_APID and click the right arrow button. Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.040	~	Select Parameter 4 for Fields 4 - 8.				3/12/97
2.041	USER1	Select the fourth field in the D_B Dynamic Page.	4th field highlighted.	Field, not Label or Separator		3/12/97
2.042	USER1	From the Display Item Data Source window click Add.	Display Item Parameter Picker window appears.			3/12/97
2.043	USER1	Disable the button for the AM1_SDU filter selection.	The list of filtered commands clears from the list box.			3/12/97
2.044	USER1	Enable the button for the	A list of filtered commands			3/12/97

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		AM1_EPS_S filter selection.	appear in the list box.			
2.045	USER1	Select EPS_SR_SA_RAT_ADJ_A and click the right arrow button. Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.		3/12/97	
2.046	USER1	Select the fifth field in the D_B Dynamic Page.	5th field highlighted.		3/12/97	
2.047	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.		3/12/97	
2.048	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.		3/12/97	
2.049	USER1	Select the sixth field in the D_B Dynamic Page.	6th field highlighted.		3/12/97	
2.050	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.		3/12/97	
2.051	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.		3/12/97	
2.052	USER1	Select the seventh field in the D_B Dynamic Page.	7th field highlighted.		3/12/97	
2.053	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.		3/12/97	
2.054	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears		3/12/97	

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2.055	USER1	Select the eighth field in the D_B Dynamic Page.	in the first parameter field of the D_B Dynamic Page. 8th field highlighted.			3/12/97
2.056	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.057	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.058	~	Select Parameter 5 for Fields 9 - 13.				3/12/97
2.059	USER1	Select the ninth field in the D_B Dynamic Page.	9th field highlighted.			3/12/97
2.060	USER1	From the Display Item Data Source window click Add.	Display Item Parameter Picker window appears.			3/12/97
2.061	USER1	Disable the button for the AM1_EPS_S filter selection.	Filter list box is empty.			3/12/97
2.062	USER1	Enable the button for the AM1_GNC_T filter selection.	A list of filtered commands appear in the list box.			3/12/97
2.063	USER1	Select GNC_TR_ST1_CCD and click the right arrow button. Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.064	USER1	Select the tenth field in the D_B Dynamic Page.	10th field highlighted.			3/12/97
2.065	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97

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2.066	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.067	USER1	Select the eleventh field in the D_B Dynamic Page.	11th field highlighted.			3/12/97
2.068	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.069	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.070	USER1	Select the twelfth field in the D_B Dynamic Page.	12th field highlighted.			3/12/97
2.071	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.072	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.073	USER1	Select the thirteenth field in the D_B Dynamic Page.	13th field highlighted.			3/12/97
2.074	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.075	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97

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2.076	~	Save page, exit D_B, eat lunch, reopen D_B, open existing page & continue editing.	Release B			3/12/97
2.077	USER1	Save the Alphanumeric page as EOC51ALPHA1.In the D_B Palette window:click Fileclick Save AsSet path in Filter box to: /fos/test/aml/displaydefs/ne wpagesclick Filter buttonClick in the Selection box and type EOC51ALPHA1.Click OK	Message that EOC51ALPHA1 was saved.	Release B		3/12/97
2.078	USER1	Exit Display BuilderIn the D_B Palette window:click Fileclick Quit	D_B closes.Quit - per OTM p7-11	Release B		3/12/97
2.079	~	Eat lunch				
2.080	USER1	Start Display Builder (DB) via menu selections.Tools,Display_B uilder (Double-click)	Display Builder opened	Release B		3/12/97
2.081	USER1	Open existing page EOC51ALPHA1.In the D_B Palette window:click Fileclick OpenSet path in Filter box to: /fos/test/aml/displaydefs/ne wpagesclick Filter buttonClick in the Selection box and type EOC51ALPHA1.Click OK	EOC51ALPHA1 page is displayed in the D_B Palette Window.	Release B		3/12/97

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		Fields 14 - 18.				
2.083	USER1	Select the fourteenth field in the D_B Dynamic Page.	14th field highlighted.			3/12/97
2.084	USER1	From the Display Item Data Source window click Add.	Display Item Parameter Picker window appears.			3/12/97
2.085	USER1	Disable the button for the AM1_GNC_T filter selection.	Filter list box is empty.			3/12/97
2.086	USER1	Enable the button for the AM1_EPS_V filter selection.	A list of filtered commands appear in the list box.			3/12/97
2.087	USER1	Select EPS_VR_BBAT_VA and click the right arrow button. Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.	Near bottom of list		3/12/97
2.088	USER1	Select the fifteenth field in the D_B Dynamic Page.	15th field highlighted.			3/12/97
2.089	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.090	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.091	USER1	Select the sixteenth field in the D_B Dynamic Page.	16th field highlighted.			3/12/97
2.092	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.093	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears			3/12/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
			in the first parameter field of the D_B Dynamic Page.			
2.094	USER1	Select the seventeenth field in the D_B Dynamic Page.	17th field highlighted.			3/12/97
2.095	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.096	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.097	USER1	Select the eighteenth field in the D_B Dynamic Page.	18th field highlighted.			3/12/97
2.098	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.099	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.100	~	Select Parameter 7 for Fields 19 - 23.				3/12/97
2.101	USER1	Select the nineteenth field in the D_B Dynamic Page.	19th field highlighted.			3/12/97
2.102	USER1	From the Display Item Data Source window click Add.	Display Item Parameter Picker window appears.			3/12/97
2.103	USER1	Disable the button for the AM1_EPS_V filter selection.	Filter list box is empty.			3/12/97
2.104	USER1	Enable the button for the AM1_CDH_N filter selection.	A list of filtered commands appear in the list box.			3/12/97

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
2.105	USER1	Select CDH_NR_SSR2_HKREC TR and click the right arrow button. Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.	Near bottom of list		3/12/97
2.106	USER1	Select the twentieth field in the D_B Dynamic Page.	20th field highlighted.			3/12/97
2.107	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.108	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.109	USER1	Select the twenty-first field in the D_B Dynamic Page.	21st field highlighted.			3/12/97
2.110	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.111	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.112	USER1	Select the twenty-second field in the D_B Dynamic Page.	22nd field highlighted.			3/12/97
2.113	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.114	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field			3/12/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
2.115	USER1	Select the twenty-third field in the D_B Dynamic Page.	of the D_B Dynamic Page. 23rd field highlighted.			3/12/97
2.116	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.			3/12/97
2.117	USER1	In the Display Item Parameter Picker window: Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.			3/12/97
2.118	~	From the Display Item Format window exercise	Resize DIF window to see all options. ref:609 pg 7-10			3/12/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		HeaderChange the color to YellowChange the Alignment to LeftClick Apply				
2.121	USER1	Modify the second label fields as follows:Highlight the 2nd Label fieldSet the Width to: 200 (default is 100)Set the Height to: 30 (default is 20)Change the text to: HousekeepingChange the color to YellowChange the Alignment to CenterClick Apply	Label text changes to Housekeeping.			3/12/97
2.122	USER1	Modify the third label fields as follows:Highlight the 3rd Label fieldSet the Width to: 200 (default is 100)Set the Height to: 30 (default is 20)Change the text to: Health & SafetyChange the color to YellowChange the Alignment to RightClick Apply	Label text changes to Health & Safety.			3/12/97
2.123	~	Modify the x, y, width, and height of a field.	Field position and size modified as desired.			3/12/97
2.124	~	Modify the conversion of the value (Converted, Decoded, Raw).	The 3 types of values will display accurately when data received.	Each conversion type will be on a separate page.		3/12/97
2.125	USER1	Select each Label and Field sequentially from top to bottom. Perform the	Field position modified when click "Apply" ..All fields already set to	Add 10 between groups of 5.		3/12/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		following modifications (as applicable): set x to 20, set y to the previous field's y + 20 (starting at 0)ensure "Conversion:" is set to Convertedset the "Display Type" of the 1st of each group of 5 duplicate commands to: Formatted, the 2nd to HEX, 3rd to Octal, 4th to Binary, 5th to Scientific Notationset "Value Format - Alignment" to Centerclick Apply	Converted by defaultThe 2 Housekeeping commands and the 2 Health&Safety commands will each be displayed with the 5 different "Display Types".			
2.126	USER1	Save the Alphanumeric page as EOC51ALPHA1.In the D_B Palette window:click Fileclick Save Asclick in the Selection box and type EOC51ALPHA1.Click OK.			3/12/97	
2.127	USER1	Save the Alphanumeric page again as EOC51ALPHA2.In the D_B Palette window:click Fileclick Save As...click in the Selection box and type EOC51ALPHA2.			3/12/97	
2.128	~	Modify the field components (label, units, flags).			3/12/97	
2.129	USER1	For SDU_SCTIME (Field	Parameter name no longer		3/12/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		1), disable the Field Component - Label.Select SDU_SCTIME(Field 1).Click the Label button.Click Apply.	displayed.			
2.130	USER1	For EPS_SR_SA_RAT_ADJ_A (Field 5), disable the Field Component - Label. Select EPS_SR_SA_RAT_ADJ_A (Field 5).Click the Label button.Click Apply.	Parameter name no longer displayed.		3/12/97	
2.131	USER1	For EPS_SR_SA_RAT_ADJ_A (Field 6), disable the Field Component - Units.Select EPS_SR_SA_RAT_ADJ_A (Field 6).Click the Units button.Click Apply.	Units placeholder no longer displayed.		3/12/97	
2.132	USER1	For EPS_SR_SA_RAT_ADJ_A (Field 7), disable the Field Component - Label. Select EPS_SR_SA_RAT_ADJ_A (Field 7).Click the Flags button.Click Apply.	Flags placeholder no longer displayed.		3/12/97	
2.133	~	Modify the width of the value in characters.Default is 20.			3/12/97	
2.134	USER1	For GNC_TR_ST1_CCD			3/12/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		(Field 10), modify the Value Format Text Width to 10.Select GNC_TR_ST1_CCD (Field 10)Click the Text Width box.Enter 10.Click Apply.				
2.135	USER1	For GNC_TR_ST1_CCD (Field 11), modify the Value Format Text Width to 30.Click the Text Width box. Select GNC_TR_ST1_CCD (Field 11)Enter 30.Click Apply.			3/12/97	
2.136	USER1	For GNC_TR_ST1_CCD (Field 12), modify the Value Format Text Width to 40.Select GNC_TR_ST1_CCD (Field 12)Click the Text Width box.Enter 40.Click Apply.			3/12/97	
2.137	~	Modify the alignment of the value (Left, Centered, Right). Left is default, previous steps changed all alignments to center.			3/12/97	
2.138	USER1	For EPS_VR_BBAT_VA (Field 15), modify the Alignment to Left.Select EPS_VR_BBAT_VA (Field 15)Click the			3/12/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		Alignment box.Click Left.Click Apply.				
2.139	USER1	For EPS_VR_BBAT_VA (Field 16), modify the Alignment to Right.Select EPS_VR_BBAT_VA (Field 16)Click the Value Format Alignment box.Click Right.Click Apply.				3/12/97
2.140	~	Modify the content of the label (Mnemonic, Descriptor).	Label displays as appropriate.			3/12/97
2.141	USER1	For CDH_NR_SSR2_HKREC TR(Field 20), modify the Label Format Content to Descriptor. Select CDH_NR_SSR2_HKREC TR(Field 20)Click the Content box.Click Apply.	Descriptor replaces mnemonic	Release B will display a short description. Release A is blank.		3/12/97
2.142	~	Modify the alignment of the units (Left, Centered, Right). Default is Left.		OTM p7-10		3/12/97
2.143	USER1	For CDH_NR_SSR2_HKREC TR(Field 21), modify the Units Format Alignment to Center.Select CDH_NR_SSR2_HKREC TR(Field 21)Click the Units Format Alignment	Units placeholder moves to center.	Release B will display a short description. Release A is blank.		3/12/97

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
2.144	USER1	box. Click Center.Click Apply.	Units placeholder moves to right.	Release B will display a short description. Release A is blank.		3/12/97
2.145	USER1	For CDH_NR_SSR2_HKREC TR(Field 22), modify the Units Format Alignment to Right.Select CDH_NR_SSR2_HKREC TR(Field 22)Click the Units Format Alignment box. Click Right.Click Apply.	Flags aligned appropriately.	OTM p7-10		3/12/97
2.146	USER1	Modify the alignment of the flags (Left, Centered, Right).	Flags aligned appropriately.	Page saved as EOC51ALPHA2.		3/12/97
2.147	~	Save the Dynamic Page of modified alphanumeric displays as EOC51ALPHA2.In the D_B Palette window:click Fileclick Save AsSet path in Filter box to: /fos/test/am1/displaydef/ne wpagesclick Filter buttonClick in the Selection box and type EOC51ALPHA2.Click OK	Create a new page with a table. Demonstrate the ability to modify the properties.Modify the x, y, width, and height of a table.Modify the associated	ref:609 pg 7-10 More Table edit capabilities to be implemented in Release B.		3/12/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		parameters of a table.				
2.148	USER1	Create a new page with a table. Click TableMove pointer to D_B Dynamic Page and click to place table.	Table outline appears in window.		3/12/97	
2.149	USER1	With table highlighted, from the Edit menu select Logical String Management.	Dynamic Page Data Sources window appears.		3/12/97	
2.150	USER1	On the Dynamic Page Data Sources window select the following 4 options: AM1Real-timeOperationalDefault.Click Add, Click OK.	Dynamic Page Data Sources window closes.	No documentation available. FUI2060	3/12/97	
2.151	USER1	In the Display Item Format window: set X to: 20 set Y to: 0 set Width to: 500 set Height to: 500 click Apply.	Table moves to position and size specified. Default Width and Height is 350		3/12/97	
2.152	~	Associate logical string(s) via the Data Source Management Dialog window for a new Table page.	Logical strings associated with new page.	need to identify types of strings based on available data.	3/12/97	
2.153	~	Associate parameters with display items via the Data Source Dialog window.		ref:609pg7-11	3/12/97	
2.154	~	Create the filters of desired parameters.		FUI2060	3/12/97	
2.155	USER1	From the Display Item Data Source window click Add.	Display Item Parameter Picker window appears.		3/12/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
2.156	USER1	From the Display Item Parameter Picker window click the Filter button.	Selection Filter window appears.			3/12/97
2.157	USER1	Select the following filtering items in the appropriate boxes, then click on Select for each.AMI SDUAM1 EPS SAM1 EPS V AM1 GNC TAM1 CDH NClick OK.	Filter window closes and the filter selections appear in the Display Item Parameter Picker			3/12/97
2.158	USER1	Enable the button for the filter selection AM1_SDU.	A list of filtered commands appear in the list box.			3/12/97
2.159	USER1	Select SDU_SCTIME and click the right arrow button. Select SDU_PACKET_SEQ and click the right arrow button. Select SDU_PCKT_APID and click the right arrow button. Click OK.	Display Item Parameter Picker window closes. Selected parameters appears in the Display Item Data Sources window.			3/12/97
2.160	USER1	From the Display Item Data Source window click Add.	Display Item Parameter Picker window appears.			3/12/97
2.161	USER1	Disable the button for the AM1_SDU filter selection.	The list of filtered commands clears from the list box.			3/12/97
2.162	USER1	Enable the button for the AM1_EPS_S filter selection.	A list of filtered commands appear in the list box.			3/12/97
2.163	USER1	Select EPS_SR_SA_RAT_ADJ_A and click the right arrow	Display Item Parameter Picker window closes. Selected command appears			3/12/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		button. Click OK.	in the first parameter field of the D_B Dynamic Page.			
2.164	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.		3/12/97	
2.165	USER1	Disable the button for the AM1_EPS_S filter selection.	The list of filtered commands clears from the list box.		3/12/97	
2.166	USER1	Enable the button for the AM1_GNC_T filter selection.	A list of filtered commands appear in the list box.		3/12/97	
2.167	USER1	Select GNC_TR_ST1_CCD and click the right arrow button. Click OK.	Display Item Parameter Picker window closes. Selected command appears in the first parameter field of the D_B Dynamic Page.		3/12/97	
2.168	USER1	From the Display Item Data Source window click ADD.	Display Item Parameter Picker window appears.		3/12/97	
2.169	USER1	Disable the button for the AM1_GNC_T filter selection.	The list of filtered commands clears from the list box.		3/12/97	
2.170	USER1	Enable the buttons for the AM1_EPS_V and the AM1_CDH_N filter selections.	A list of filtered commands appear in the list box.		3/12/97	
2.171	USER1	Select CDH_NR_SSR2_HKREC TR and click the right arrow button. Select EPS_VR_BBAT_VA and click the right arrow button. Click OK.	Display Item Parameter Picker window closes. Selected commands appears in the mnemonic field of the Display Item Data Sources window."7 used of 50 available data sources." Appears at		3/12/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
2.172	USER1	Save the Table page as EOC51TABLE1.In the D_B Palette window:click Fileclick Save Asclick in the Selection box and type EOC51TABLE1.	bottom of Display Item Data Sources window Page saved.			3/12/97
2.173	-	Exercise the ability to modify the properties of Separators.Modify the x, y, width, and height of a separator.Modify the orientation of a separator (horizontal, vertical).		ref:609 pg 7-10		3/12/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		graph.Modify the associated parameters of a graph.				
2.178	USER1	In the Display Item Format window:set X to: 20set Y to: 0set Width to:500set Height to: 500click Apply.	Table moves to position specified.Default Width and Height is 350			3/12/97
2.179	~	Associate parameters with display items via the Data Source Dialog window.		ref:609pg7-11		3/12/97
2.180	~	Create the filter of desired parameter.		FUI2060		3/12/97
2.181	USER1	From the Display Item Data Source window click Add.	Display Item Parameter Picker window appears.			3/12/97
2.182	USER1	From the Display Item Parameter Picker window click the Filter button.	Selection Filter window appears.			3/12/97
2.183	USER1	Select the AM1 SDU filter items in the appropriate boxes, then click on Select.Click OK.	Filter window closes and the filter selection appears in the Display Item Parameter Picker			3/12/97
2.184	USER1	Enable the button for the filter selectionAM1_SDU.	A list of filtered commands appear in the list box.			3/12/97
2.185	USER1	Select SDU_PACKET_SEQ and click the right arrow button.Click OK.	Display Item Parameter Picker window closes. SDU_PACKET_SEQ along with SDU_SCTIME appears in the Display Item Data Sources window.			3/12/97
2.186	USER1	Save the Dynamic Page as EOC51GRAPH1.In the D_B Palette window:click	Page saved.			3/12/97

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		Fileclick Save Asclick in the Selection box and type EOC51GRAPH1.				
2.187	USER1	Exit Display Builder.	Current room displayed.		3/12/97	
2.188	~	Run ProcessPms		Release A only.	3/12/97	
2.189	USER1	In the UNIX terminal, where the UserStation was started; bring down the User Work Station (UWS).Type MyKill	Userstation processes terminate as described in test termination steps.		3/12/97	
2.190	USER1	After UWS termination is complete, run ProcessPms to process the page into the software and register with the environment.Type ProcessPms	After a few moments the prompt will return.		3/12/97	
2.191	USER1	Restart the UWS.Type source A2_UserStationStartup	UWS processes are started as described in the startup procedures.		3/12/97	
2.192	USER1	Open Event_Display and reconnect to String 100, per startup procedures.	Event_Display open and UWS connected to string 100.		3/12/97	
2.193	USER1	Display the pages just created.Click on TlmWins...Select EOC51ALPHA1 Click on OK Select EOC51TABLE1Click on OK Select EOC51GRAPH1Click on OK	Pages displayed.		3/12/97	
2.194	ETS	Initiate sending	Data received by EOC.		3/12/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		Housekeeping data to EOC.				
2.195	USER1	Verify data displayed and updated properly.	Original and modified pages display appropriately.		3/12/97	
2.196	ETS	Terminate Housekeeping data.	Data stopped.		3/12/97	
2.197					3/12/97	
2.198	~	Create a customized Event Display.	TBS	Release B.?	3/12/97	
2.199					3/12/97	
2.200	~	Use Room_Builder to create a new permanent room called "EOC51ROOM1".		OTM section 7.10	3/12/97	
2.201	USER1	Open the Events_Display Tool window.	The Events_Display window is displayed.	ref:604pr3.4.8.2	3/12/97	
2.202	USER1	Open the page EOC51ALPHA1.	EOC51ALPHA1 window is displayed.		3/12/97	
2.203	USER1	Open the page EOC51TABLE1.	EOC51TABLE1 window is displayed.		3/12/97	
2.204	USER1	Open the page EOC51GRAPH1.	EOC51GRAPH1 window is displayed.		3/12/97	
2.205	USER1	Add to the current room a Schematic window.	A Schematic window is displayed.	Release B	3/12/97	
2.206	~	Enter Room_Builder and name the room as EOC51ROOM1 and save as a permanent, default room.		Per OTM 7.10 p7-12	3/12/97	
2.207	USER1	Start Room_Builder (R_B) via menu selections.Tools.Room_Bui	Room Builder displayed	Load_Manager window was restored.SMODr00188	3/12/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		Ilder (Double-click)				
2.208	USER1	Enter a new room name.Click in the Name: fieldType EOC51ROOM1				3/12/97
2.209	USER1	Select desired persistence of the room.Click on Permanent toggle button.	Button appears depressed.			3/12/97
2.210	USER1	Select desired configuration as default.Click on Default button.	Label next to Default button will display "Defined".			3/12/97
2.211	USER1	Click OK.	Room_Builder closes.Pages are displayed as arranged in Room_Builder.			3/12/97
2.212	~			Per OTM 7.10 p7-12		3/12/97
2.213	~	Enter Room_Builder and name the room as EOC51ROOM1 and save as a permanent, tiled room.				
2.214	USER1	Start Room_Builder (R_B) via menu selections.Tools,Room_Builder (Double-click)	Room Builder displayed			3/12/97
2.215	USER1	Rearrange the windows.	Windows relocated.			3/12/97
2.216	USER1	Enter a new room name.Click in the Name: fieldType EOC51ROOM1				3/12/97
2.217	USER1	Select desired persistence of the room.Click on Permanent toggle button.	Button appears depressed.			3/12/97
2.218	USER1	Select desired configuration as default.Click on Tile button.	Label next to Tile button will display "Defined".			3/12/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
2.219	USER1	Click OK.	Room_Builder closes.Pages are displayed as arranged in Room_Builder.			3/12/97
2.220	USER1	Select and display a different room.	EOC51ROOM1 windows are replaced by the new room's windows.			3/12/97
2.221	USER1	Select and display the EOC51ROOM1 room.	The previous room's windows are replaced by EOC51ROOM1 windows in the default position.			3/12/97
2.222	USER1	Select Tile.	The EOC51ROOM1 windows are arranged as defined by the TILE setting.			3/12/97
2.223	ETS	Initiate sending Housekeeping data to EOC.	Data received by EOC.			3/12/97
2.224	USER1	Verify data displayed and updated properly.	The EOC51ROOM1 windows display and are updated correctly.			3/12/97
2.225	ETS	Terminate Housekeeping data.	Data stopped.			3/12/97
2.226	~	Temporarily modify the EOC51ROOM1 room:				3/12/97
2.227	USER1	Close the table window.				3/12/97
2.228	USER1	Add a Graph window.	A second Graph window is displayed.			3/12/97
2.229	USER1	Enter Room Builder and save the new EOC51ROOM1 window arrangement as a temporary, default room.	Room saved.			3/12/97

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
2.230	USER1	Select and display a different room.	EOC51ROOM1 windows are replaced by the new room's windows.			3/12/97
2.231	USER1	Select and display the EOC51ROOM1 room.	The previous room's windows are replaced by modified EOC51ROOM1 windows.			3/12/97
2.232	USER1	Terminate the session with "MyKill", then initiate a new session. Follow User WorkStation startup procedures in Test Setup.	User WorkStation closes. Then comes up after startup.			3/12/97
2.233	USER1	Select EOC51ROOM1 room.	EOC51ROOM1 windows are displayed as defined in the permanent, default setting (not the temporary settings).			3/12/97
2.234	USER1	Redisplay main room.	Main room displayed.	Test cleanup.		3/12/97
3.001	UWS	Collect all necessary screen snaps, dumps, etc. needed for post-test analysis and verification.Copy cdb.dat to a file under ivvtest.				3/12/97
3.002	UWS	Save Event_Display data in ivvtest4 directory. (fill in current "date") In Event_Display menu:Select File,select Save As,enter /home/ivvtest4/evtdis."date " _eoc"xx"				3/12/97
3.003	UWS	Bring down User Work Stations (UWS). In the				3/12/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		UNIX window where the user station was initiated, enter:MyKill				
3.004	UWS	After UWS killed, check for undesirable processes. ps -ax			3/12/97	
3.005	UWS	Open any iconized processes, or pages that didn't close. Close the windows.Under the File menu heading select Quit.	Window closes.		3/12/97	
3.006	UWS	Kill all undesirable processes - Processes with a /fos/test/aml/bin/... prefix and owner is not "root" (there may be others).Initially, as process owner, use MyKill to shutdown the process. If processes are still active use kill "pid" for each undesirable process.Type ps -ef again to verify.	Notes: The user may need to be logged in as the owner of the processes in order to kill them.		3/12/97	
3.007	UWS	Bring up the FOS Homepage on Netscape(May be already open in mss2eoc SUN room 2):netscape	FOS Database Access Page displayed. If not automatically displayed, check Netscape's bookmarks. If no bookmark enter the url: http://198.118.199.20/FosDbHome.html		3/12/97	
3.008	UWS	Verify no endpoints exist on UWS:Click on	"Total matches = 0".Note: If any endpoints exist		3/12/97	

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		Nameserver DatabaseClick on Clear FormIn Entry ID field enter: fose#oe (where # is UWS number)Click on Submit.	recheck for live processes/endpoints on the UWS using ps -ax . They must all be removed/killed prior to system startup. As a last resort use Kill -9 "pid".			
3.009	RTS	Bring down Real Time Server (foseoc6). In the UNIX window where the RTS was initiated, enter:MyKill	Wait 1-5 minutes		3/12/97	
3.010	RTS	After RTS killed, check for undesirable processes. ps -ef			3/12/97	
3.011	RTS	Kill all undesirable processes - Processes with a /fos/test/aml/bin/... prefix and owner is not "root" (there may be others).Initially, as process owner, use MyKill to shutdown the process. If processes are still active use kill "pid" for each undesirable process.Type ps -ef again to verify.	Notes: The user may need to be logged in as the owner of the processes in order to kill them.		3/12/97	
3.012	RTS	Bring up the FOS Homepage on Netscape(May be already open in mss2eoc SUN room 2):netscape	FOS Database Access Page displayed. If not automatically displayed, check Netscape's bookmarks. If no bookmark enter the		3/12/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
			url: http://198.118.199.20/FosDbHome.html			
3.013	RTS	Verify no endpoints exist on RTS: Click on Nameserver DatabaseClick on Clear FormIn EntryID field enter: foseoc6Click on Submit.	"Total matches = 0". Note: If any endpoints exist recheck for live processes/endpoints on the Real Time Server using ps -ef . They must all be removed/killed prior to system startup. As a last resort use Kill -9 "pid".			3/12/97
3.014	DS	Bring down Data Server (foseoc7). In the UNIX window where the RTS was initiated, enter:MyKill	Wait 1-5 minutes.			3/12/97
3.015	DS	After DS killed, check for undesirable processes. ps -ef				3/12/97
3.016	DS	Kill all undesirable processes - Processes with a /fos/test/aml/bin/... prefix and owner is not "root" (there may be others). Initially, as process				

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		Homepage on Netscape(May be already open in mss2eoc SUN room 2):netscape	displayed. If not automatically displayed, check Netscape's bookmarks. If no bookmark enter the url: http://198.118.199.20/FosDbHome.html			
3.018	DS	Verify no endpoints exist on DS:Click on Nameserver DatabaseClick on Clear FormIn EntryID field enter: fossec7Click on Submit.	"Total matches = 0". Note: If any endpoints exist recheck for live processes/endpoints on the Data Server using ps -ef. They must all be removed/killed prior to next system startup.			3/12/97
3.019	EOC	Verify no endpoints exist on FOS:Click on Nameserver DatabaseClick on Clear FormClick on Submit.	"Total matches = 0". Note: If any endpoints exist recheck for live processes/endpoints on the User Work Stations, Real Time Server, and Data Server using ps -ef or ps -ax. All processes must be removed/killed prior to system startup.			3/12/97
4.001		Verify EOC-9010#A			EOC-9010#A,	3/12/97
4.002		Verify EOC-9020#A			EOC-9020#A,	3/12/97
4.003		Verify EOC-9025#A			EOC-9025#A,	3/12/97
4.004		Verify EOC-9110#A			EOC-9110#A,	3/12/97

EOC5.2 - User Function Control

This test verifies the capability to assign key functions such as command activity controller (CAC) and ground controller to various workstations. An attempt will be made to bestow authority to a user outside the EOC.

A second console will attempt to take command activity controller authority away from an existing CAC. The existing CAC will logout and the second console will be allowed CAC authority.

Verified Requirements:

EOC-9010#A

EOC-9020#A

EOC-9025#A

EOC-9110#A

Procedures:

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
1.001	EOC	If the Data Server (DS) and Real Time Server (RTS) are running, skip to step 21 to start a User Work Station (UWS).				4/17/97
1.002	EOC	Log onto an EOC console (mssec2) as IVVTEST. Enter password.	UNIX Terminal window(s) open. Preferably bring up the Data Server and Real Time Server on a console that will not be used as a user workstation during the test. Note: Startup and shutdown procedures can be found in the Operations Tools Manual page 4-3. Use of mssec2 is for consistency; operationally it will be used for LSM not as a Userstation.			4/17/97
1.003	EOC	Open SUN workstation room 2 (of 4). Click on button labeled Two.	UNIX Terminal window(s) open. Note: Use of 2nd & 3rd rooms are for organizational purposes only, it is not a required configuration.	Open a UNIX terminal window if none open.		4/17/97
1.004	EOC	Bring up the FOS Homepage on Netscape: netscape	FOS Database Access Page displayed. If not automatically displayed, check Netscape for a bookmark. If no bookmark enter the			4/17/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
			url: http://198.118.199.20/FosDbHome.html			
1.005	EOC	Verify no endpoints exist:Click on Nameserver DatabaseClick on Clear FormClick on Submit.	"Total matches = 0". Note: If any endpoints exist watch for live processes/endpoints on the Data Server, Real Time Server, and on User Stations in the following steps. They must all be removed/killed prior to system startup.			4/17/97
1.006	EOC	Open SUN workstation room 1 (of 4).Click on button labeled One.	UNIX Terminal window(s) open.Note: Use of 1st & 2nd & rooms are for organizational purposes only, it is not a required configuration. Also, Data Server and Real Time Server may be started from different consoles.	Open two UNIX terminal windows if none open.		4/17/97
1.007	DS	Remote login to the Data Server (foseoc7):rlogin foseoc7/enter your "password" (used in step 1)	Successful login to Data Server.			4/17/97
1.008	DS	Change directory and check for live processes.test (or cd /fos/test/aml/scripts/setup ps -ef	Current processes will be displayed along with owner. Note: "ps -ef" truncates the process path/name. Use "ps -ax" to see process name	Path may be aliased as "test"		4/17/97
1.009	DS	Kill all undesirable processes - Processes with	Notes: "kill -USR1" saves data created since the Data			4/17/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		a /fos/test/am1/bin/... prefix and owner is not "root" (there may be others).Initially, as process owner, use MyKill to shutdown the process. If processes are still active use kill -USR1 "pid" for each active process, then use kill -9 "pid" for each undesirable process.Type ps -ef again to verify.	Server was brought up. Use "kill -9" only after "kill -USR" on the Data Server or Real Time Server; or data may be lost. The user may need to be logged in as the owner of the processes in order to kill them.			
1.010	RTS	From the 2nd UNIX window in room 1, remote login to the Real Time Server (foseoc6):rlogin foseoc6enter your "password" (same as in step 1)	Successful login to Real Time Server.		4/17/97	
1.011	RTS	Change directory and check for live processes.test (or cd /fos/test/am1/scripts/setup) ps -ef	Current processes will be displayed along with owner and process id.		4/17/97	
1.012	RTS	Kill all undesirable processes - Processes with a /fos/test/Am1/bin/... prefixInitially, as process owner, use MyKill to shutdown the process. If processes are still active use kill -USR1 "pid" for each active process, then			4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		use kill -9 "pid" for each undesirable process.Type ps -ef again to verify.				
1.013	DS	At the Data Server (foseoc7), source the A2_DataServerStartup shell script from directory: /fos/test/am1/scripts/setup.sourceforge A2_DataServerStartup	The script will take 1-5 minutes to complete.		4/17/97	
1.014	DS	Observe in the UNIX window:"Successful installation of signal handler FpLQSigHand", and repeating "Waiting for activity"	If this message is not displayed, first wait a little longer, while waiting check the number of processes on the Data Server via netscape (next step). Most likely cause of failure is the presence of processes/endpoints prior to startup of Data Server. If unsuccessful startup, type MyKill, in Data Server's UNIX window, recheck for processes on all servers, and restart.		4/17/97	
1.015	EOC	From Netscape in SUN workstation room 2, verify that 14 endpoints are now found by submitting a blank form.BackSubmit	The number of endpoints found is 14.Using "ps -ax" 18 processes are active.If the number of endpoints does not equal 14, be sure startup has completed, if so, use MyKill to clean out all processes. Restart from		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
1.016	RTS	At the Real Time Server (foseoc6) in SUN workstation room 1, source the A2_RealTimeServerStartup shell script from directory: /fos/test/am1/scripts/setup.sourceforge A2_RealTimeServerStartup	step 4.	The script will take 2- 5 minutes to complete.		4/17/97
1.017	RTS	Observe in the UNIX window:For FOS version A.2P7:"DECOM IS READY TO RECEIVE I CHANNEL PACKETS..." and "DECOM IS READY TO RECEIVE Q CHANNEL PACKETS..."For FOS version A.2P7+ECT1 patch (aka 1.1.0d):"Creating a pptp coupler"	Note: The DECOM messages will appear several times, wait until they appear on two consecutive lines. (1.1.0d wait for "Creating a pptp coupler")There should not be any FORMAT Problem: xxx -socket error'. This is an indication that endpoints existed prior to startup.	The completion status and endpoint count are subject to change.		4/17/97
1.018	EOC	From Netscape in the SUN workstation room 2, verify that 48 endpoints are now found by submitting a blank form.BackSubmit	The number of endpoints found is 48.If the number of endpoints does not equal 48, be sure startup has completed, if so, use MyKill to clean out all Real Time Server (RTS) processes. Use Netscape with "foseoc6" in the "Entry ID" field to verify 0 endpoints on RTS. Use "ps			4/17/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
			-ef" to check for undesirable processes. Restart RTIS.			
1.019	EOC	Leave Data Server and Real Time Server windows open to view statuses.			4/17/97	
1.020	EOC	If the console will be used as a User workstation, close Netscape.	Warning: Netscape and the Event_Display window can not be open at the same time (12/05/96).		4/17/97	
1.021	UWS	Log onto an EOC User Work Station (preferably not msseoc2).Enter your user name.Enter your password.	UNIX Terminal window(s) open.		4/17/97	
1.022	UWS	Change directory and check for live processes.test (or cd /fos/test/am1/scripts/setup) ps -aux	Current processes will be displayed along with owner. There should be no undesirable processes. If so, run MyKill as owner of processes. Then attempt 'kill pid#'. Only use 'kill -9' is a last resort.		4/17/97	
1.023	UWS	Source the A2_UserStationStartup shell script from directory: /fos/test/am1/scripts/setup.s ource A2_UserStationStartup	The script will take 3 - 5 minutes to complete.The following six planning and scheduling windows will open: -Load Generator -Activity Definer -BAP Definer -Load_Manager -EOS Timeline -General Scheduler.A Control Window will open		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
1.024	UWS	Iconize the 6 planning and scheduling windows.	If there are not 6 planning and scheduling icons and the Control Window, first wait a little longer; while waiting check the number of processes on the user station via netscape (enter console name in "Entry ID" field. Correct number of user station endpoints is 8 ?) If unsuccessful startup, type MyKill, in user Station's UNIX window, kill undesirable processes, and restart user station only. If still unsuccessful call for help, you'll probably perform a complete shutdown and restart!	last.Netscape endpoint count at this point is 57.		4/17/97
1.025	UWS	Bring up Event_Display window.Click on "Tools..." button in Control Window,select Event_Display, and OK.	Event_Display may take a few minutes to appear.			4/17/97
1.026	UWS	Issue the ECL directive to connect to string 100:STRING CONNECT STRING=100 TLMTRY PE=ALL CONFIG=MIRROR	Event message: "Successfully connected to String 100." Approximately a 7 minute wait.			4/17/97
1.027	UWS	From a UNIX window,	This can be done while			4/17/97

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		different from the window used for User startup, run the SI&T userstation configuration recording script: /home/ivvtest3/scripts/tconfig.scr	waiting for the string to connectCreates a file called testconfig.			
1.028	UWS	From the UNIX window, rename the testconfig file.Mv testconfig <newname>			4/17/97	
1.029	UWS	Record the system configuration on the execution cover sheet.	System configuration recorded (while waiting for the string to connect).		4/17/97	
1.030	UWS	Enable telemetry data archiving.Note: Release A: Archiving is already enabled. Release B: The ECL directive ARCHIVE will control the archiving modes: ARCHIVE TLM =ENABLE <tlm TYPE>	For Release A, no event message is expected. For Release B, an event message stating that telemetry archiving is enabled.		4/17/97	
2.001	USER1	Attempt to create a string:STRING CREATE REAL TIME SPACECRAFTID=AM1 DATABASEID=1_0 MODE=TEST SERVER=1	Request denied due to insufficient privileges.	Use IVVTEST1 for user without GC privileges.	4/17/97	
2.002	USER1	Connect to String 100, if not already connected.STRING CONNECT STRING=100 TLMTYPE=ALL	After a few minutes Event_Display will show a successful connection to String 100.		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		CONFIG=MIRROR				
2.003	USER1	Attempt to take ground control TAKE GROUNDCONTROL STRING=100	Request denied due to insufficient privileges.	Use IVVTEST1 for user without GC privileges.		4/17/97
2.004	USER1	Attempt to take command control TAKE COMMAND STRING=100	Request denied due to insufficient privileges.	Use IVVTEST1 for user without CAC privileges.		4/17/97
2.005	CAC	Ensure user connected to a realtime mirrored string from initial startup procedures.	Mirrored connection established			4/17/97
2.006	CAC	Request Command Activity Controller (CAC) privilege.TAKE COMMAND STRING=100	Command authority			

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		on Config, Click the Thm Verification button.				
2.012	CAC	Enter the following single valid spacecraft command on the ECL command line: /CDH_DISABLE_CTI1 LVIF	Text displayed in DIRECTIVE area of CCW. There is a 30 sec delay prior to validating the first command(Release A).	Cmd type: #2281ERT Serial/ CTIU1	4/17/97	
2.013	CAC	Click Resume.	"Send/Cancel" displayed in STATUS field. STATUS field flashes.		4/17/97	
2.014	CAC	Click Send	Command processed.		4/17/97	
2.015	GC	Ensure user connected to a realtime mirrored string from initial startup procedures.	Mirrored connection established		4/17/97	
2.016	GC	Request Ground Controller (GC) privilege.TAKE GROUNDCONTROL STRING=100	Ground Controller authority changed to appropriate user and console.		4/17/97	
2.017	GC	Create a string:STRING CREATE SIMULATION SPACECRAFTID=AM1 DATABASEID=1_0 MODE=TEST SERVER=1	String 101 successfully created.		4/17/97	
2.018	GC	Create another string:STRING CREATE SIMULATION SPACECRAFTID=AM1 DATABASEID=2_0 MODE=TEST SERVER=2	String 102 successfully created.		4/17/97	
2.019	CAC2	Request CAC privilege while a CAC already	Command authority changed	Can be former GC position.	4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		assigned.. TAKE COMMAND STRING=100				
2.020	CAC2	Click on Tools button	Tools menu displayed.		4/17/97	
2.021	CAC2	Double-click on Command Control line.	CCW/CMW window is displayed		4/17/97	
2.022	CAC2	In the CCW/CMW window enter:100 for String ID,AM1 for Spacecraft ID.	Command Control Window (CCW) is displayed, not Command Monitor Window.		4/17/97	
2.023	CAC2	Resize the Command Control Window. Lengthen the Status field.	Statuses in the STATUS field can be seen when script is resumed.		4/17/97	
2.024	CAC2	For Release A, turn off CV and TV.Click on Config,Click the Cmd Verification button,Click on Config,Click the Tlm Verification button.	Status of CV is Off,Status of TV is Off	Release A only.	4/17/97	
2.025	CAC2	Enter the following single valid spacecraft command on the ECL command line:/AST_TURN_OFF_C_VDP1	Text displayed in DIRECTIVE area of CCW.		4/17/97	
2.026	CAC2	Click Resume.	"Send/Cancel" displayed in STATUS field of AST_TURN_OFF_C_VPD 1 command. STATUS field flashes.		4/17/97	
2.027	CAC2	Click Send	Command processed.	There is a 30 sec delay prior to sending the first command.	4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
2.028	CAC	At the console previously relieved of CAC authority, request CAC privilege TAKE COMMAND STRING=100	Command authority changed from CAC2 to CAC.			4/17/97
2.029	CAC	Click on Tools button	Tools menu displayed.			4/17/97
2.030	CAC	Double-click on Command Control line.	CCW/CMW window is displayed			4/17/97
2.031	CAC	In the CCW/CMW window enter:100 for String ID,AM1 for Spacecraft ID.	Command Control Window (CCW) is displayed, not Command Monitor Window.			4/17/97
2.032	CAC	Resize the Command Control Window. Lengthen the Status field.	Statuses in the STATUS field can be seen when script is resumed.	What happens to CMW? Change back to CCW?		4/17/97
2.033	CAC	For Release A, turn off CV and TV.Click on Config, Click the Cmd Verification button,Click on Config,Click the Tlm Verification button.	Status of CV is Off,Status of TV is Off	Release A only.		4/17/97
2.034	CAC	Enter the following single valid spacecraft command on the ECL command line:/MOD_SET_SR_MTR -GRP GR=61200 SL=0 WH=5	Text displayed in DIRECTIVE area of CCW.	Cmd type: #1475ERT Serial MODIS		4/17/97
2.035	CAC	Click Resume.	"Send/Cancel" displayed in STATUS field of MOD_SET_SR_MTR_GR P GR=61200 SL=0 WH=5 command. STATUS field			4/17/97

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
2.036	CAC	Click Send	Command processed. flashes.			4/17/97
2.037	IST	Connect to a realtime mirrored string.STRING CONNECT STRING=100 CONFIG=MIRROR	Mirrored connection established	There is a 30 sec delay prior to sending the first command.		
2.038	IST	Request Command Activity Controller (CAC) privilege from outside the EOC TAKE COMMAND STRING=100	Request denied.	Release B.		4/17/97
2.039	GC	Delete all strings except String 100.				4/17/97
2.040	USER1	Perform Termination Procedures.				4/17/97
2.041	GC	Perform Termination Procedures.				4/17/97
2.042	CAC2	Perform Termination Procedures.				4/17/97
2.043	CAC	Perform Termination Procedures.				4/17/97
3.001	UWS	Collect all necessary screen snaps, dumps, etc. needed for post-test analysis and verification.Copy cdb.dat to a file under ivvtest.				4/17/97
3.002	UWS	Save Event_Display data in ivvtest4 directory. (fill in current "date") In Event_Display menu:Select				4/17/97

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		File,select Save As,enter /home/ivvtest4/evtdis."date " _eoc"xx"				
3.003	UWS	Bring down User Work Stations (UWS). In the UNIX window where the user station was initiated, enter:MyKill			4/17/97	
3.004	UWS	After UWS killed, check for undesirable processes. ps -ax			4/17/97	
3.005	UWS	Open any iconized processes, or pages that didn't close. Close the windows.Under the File menu heading select Quit.	Window closes.		4/17/97	
3.006	UWS	Kill all undesirable processes - Processes with a /fos/test/am1/bin/... prefix and owner is not "root" (there may be others).Initially, as process owner, use MyKill to shutdown the process. If processes are still active use kill "pid" for each undesirable process.Type ps -ef again to verify.	Notes: The user may need to be logged in as the owner of the processes in order to kill them.		4/17/97	
3.007	UWS	Bring up the FOS Homepage on Netscape(May be already open in mss2eoc SUN room 2):netscape	FOS Database Access Page displayed. If not automatically displayed, check Netscape's bookmarks. If no		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		bookmark enter the url: http://198.118.199.20/FosDbHome.html				
3.008	UWS	Verify no endpoints exist on UWS:Click on Nameserver DatabaseClick on Clear FormIn Entry ID field enter: fos#oe (where # is UWS number)Click on Submit.	"Total matches = 0".Note: If any endpoints exist recheck for live processes/endpoints on the UWS using ps -ax . They must all be removed/killed prior to system startup. As a last resort use Kill -9 "pid".	Wait 1-5 minutes		4/17/97
3.009	RTS	Bring down Real Time Server (fosecoc6). In the UNIX window where the RTS was initiated, enter:MyKill				4/17/97
3.010	RTS	After RTS killed, check for undesirable processes. ps -ef				4/17/97
3.011	RTS	Kill all undesirable processes - Processes with a/fos/test/aml/bin/... prefix and owner is not "root" (there may be others).Initially, as process owner, use MyKill to shutdown the process. If processes are still active use kill "pid" for each undesirable process.Type ps -ef again to verify.	Notes: The user may need to be logged in as the owner of the processes in order to kill them.			4/17/97
3.012	RTS	Bring up the FOS	FOS Database Access Page			4/17/97

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		Homepage on Netscape(May be already open in mss2eoc SUN room 2):netscape	displayed. If not automatically displayed, check Netscape's bookmarks. If no bookmark enter the url: http://198.118.199.20/FosDbHome.html			
3.013	RTS	Verify no endpoints exist on RTS:Click on Nameserver DatabaseClick on Clear FormIn EntryID field enter: foseoc6Click on Submit.	"Total matches = 0".Note: If any endpoints exist recheck for live processes/endpoints on the Real Time Server using ps -ef . They must all be removed/killed prior to system startup. As a last resort use Kill -9 "pid".		4/17/97	
3.014	DS	Bring down Data Server (foseoc7). In the UNIX window where the RTS was initiated, enter:MyKill	Wait 1-5 minutes.		4/17/97	
3.015	DS	After DS killed, check for undesirable processes. ps -ef			4/17/97	
3.016	DS	Kill all undesirable processes - Processes with a /fos/test/am1/bin/... prefix and owner is not "root" (there may be others).Initially, as process owner, use MyKill to shutdown the process. If processes are still active use kill -USR1 "pid" for	Notes: "kill -USR1" saves data created since the Data Server was brought up. Use "kill -9" only after "kill -USR" on the Data Server or Real Time Server; or data may be lost.The user may need to be logged in as the owner of the processes in order to kill them.		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		each active process, then use kill -9 "pid" for each undesirable process Type ps -ef again to verify.				
3.017	DS	Bring up the FOS Homepage on Netscape(May be already open in mss2eo SUN room 2):netscape	FOS Database Access Page displayed. If not automatically displayed, check Netscape's bookmarks. If no bookmark enter the url: http://198.118.199.20/FosDbHome.html		4/17/97	
3.018	DS	Verify no endpoints exist on DS:Click on Nameserver DatabaseClick on Clear FormIn Entry ID field enter: foseoc7/Click on Submit.	"Total matches = 0".Note: If any endpoints exist recheck for live processes/endpoints on the Data Server using ps -ef . They must all be removed/killed prior to next system startup.		4/17/97	
3.019	EOC	Verify no endpoints exist on FOS:Click on Nameserver DatabaseClick on Clear FormClick on Submit.	"Total matches = 0".Note: If any endpoints exist recheck for live processes/endpoints on the User Work Stations, Real Time Server, and Data Server using ps -ef or ps -ax. All processes must be removed/killed prior to system startup.		4/17/97	
4.001		Verify EOC-9010#A			EOC-9010#A,	4/17/97
4.002		Verify EOC-9020#A			EOC-	4/17/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
					9020#A,	
4.003		Verify EOC-9025#A			EOC-9025#A,	4/17/97
4.004		Verify EOC-9110#A			EOC-9110#A,	4/17/97

EOC5.3 - Logical String Control

This test verifies the capability to Configure and de-configure logical processing strings. A minimum of two FOS users will be on the system at the same time. Both users will be employing logical string control to demonstrate the interaction controls.

- Utilize various data sources - e.g. real-time, simulation, historical replay
- Employ various modes - e.g. operational, test, training.
- Perform in both active and backup states.
- An EOC user will request a dedicated logical string. Verification will be made that no other user can access that activity.
- An EOC user will request a shared logical string. Verification will be made that other users can access that activity.
- The ground controller (GC) will create and connect to a shared logical string. A second EOC user will request a mirrored connection to a logical string. Changes made to the string by the GC will be reflected on the second user's display.
- A second EOC user will request a tailored connection to a logical string. Changes made to the string by the GC will not be reflected on the second user's display. The second EOC user will then change the configuration without requesting Ground Control Privilege and the change will affect only the second user's display.

Verified Requirements:

EOC-8140#A

EOC-9010#A

EOC-9020#A

EOC-9025#A

EOC-9110#A

Procedures:

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
1.001	EOC	If the Data Server (DS) and Real Time Server (RTS) are running, skip to step 21 to start a User Work Station (UWS).				4/17/97
1.002	EOC	Log onto an EOC console (mssec2) as IVVTEST. Enter password.	UNIX Terminal window(s) open. Preferably bring up the Data Server and Real Time Server on a console that will not be used as a user workstation during the test. Note: Startup and shutdown procedures can be found in the Operations Tools Manual page 4-3. Use of mssec2 is for consistency; operationally it will be used for LSM not as a Userstation.			4/17/97
1.003	EOC	Open SUN workstation room 2 (of 4). Click on button labeled Two.	UNIX Terminal window(s) open. Note: Use of 2nd & 3rd rooms are for organizational purposes only, it is not a required configuration.	Open a UNIX terminal window if none open.		4/17/97
1.004	EOC	Bring up the FOS Homepage on Netscape: netscape	FOS Database Access Page displayed. If not automatically displayed, check Netscape for a bookmark. If no bookmark enter the			4/17/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
			url: http://198.118.199.20/FosDbHome.html			
1.005	EOC	Verify no endpoints exist:Click on Nameserver DatabaseClick on Clear FormClick on Submit.	"Total matches = 0". Note: If any endpoints exist watch for live processes/endpoints on the Data Server, Real Time Server, and on User Stations in the following steps. They must all be removed/killed prior to system startup.			4/17/97
1.006	EOC	Open SUN workstation room 1 (of 4).Click on button labeled One.	UNIX Terminal window(s) open.Note: Use of 1st & 2nd & rooms are for organizational purposes only, it is not a required configuration. Also, Data Server and Real Time Server may be started from different consoles.	Open two UNIX terminal windows if none open.		4/17/97
1.007	DS	Remote login to the Data Server (foseoc7):rlogin foseoc7/enter your "password" (used in step 1)	Successful login to Data Server.			4/17/97
1.008	DS	Change directory and check for live processes.test (or cd /fos/test/aml/scripts/setup ps -ef	Current processes will be displayed along with owner. Note: "ps -ef" truncates the process path/name. Use "ps -ax" to see process name	Path may be aliased as "test"		4/17/97
1.009	DS	Kill all undesirable processes - Processes with	Notes: "kill -USR1" saves data created since the Data			4/17/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		a /fos/test/am1/bin/... prefix and owner is not "root" (there may be others).Initially, as process owner, use MyKill to shutdown the process. If processes are still active use kill -USR1 "pid" for each active process, then use kill -9 "pid" for each undesirable process.Type ps -ef again to verify.	Server was brought up. Use "kill -9" only after "kill -USR" on the Data Server or Real Time Server; or data may be lost. The user may need to be logged in as the owner of the processes in order to kill them.			
1.010	RTS	From the 2nd UNIX window in room 1, remote login to the Real Time Server (foseoc6):rlogin foseoc6enter your "password" (same as in step 1)	Successful login to Real Time Server.		4/17/97	
1.011	RTS	Change directory and check for live processes.test (or cd /fos/test/am1/scripts/setup) ps -ef	Current processes will be displayed along with owner and process id.		4/17/97	
1.012	RTS	Kill all undesirable processes - Processes with a /fos/test/Am1/bin/... prefixInitially, as process owner, use MyKill to shutdown the process. If processes are still active use kill -USR1 "pid" for each active process, then			4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		use kill -9 "pid" for each undesirable process.Type ps -ef again to verify.				
1.013	DS	At the Data Server (foseoc7), source the A2_DataServerStartup shell script from directory: /fos/test/am1/scripts/setup.sourceforge A2_DataServerStartup	The script will take 1-5 minutes to complete.		4/17/97	
1.014	DS	Observe in the UNIX window:"Successful installation of signal handler FpLQSigHand", and repeating "Waiting for activity"	If this message is not displayed, first wait a little longer, while waiting check the number of processes on the Data Server via netscape (next step). Most likely cause of failure is the presence of processes/endpoints prior to startup of Data Server. If unsuccessful startup, type MyKill, in Data Server's UNIX window, recheck for processes on all servers, and restart.		4/17/97	
1.015	EOC	From Netscape in SUN workstation room 2, verify that 14 endpoints are now found by submitting a blank form.BackSubmit	The number of endpoints found is 14.Using "ps -ax" 18 processes are active.If the number of endpoints does not equal 14, be sure startup has completed, if so, use MyKill to clean out all processes. Restart from		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
1.016	RTS	At the Real Time Server (foseoc6) in SUN workstation room 1, source the A2_RealTimeServerStartup shell script from directory: /fos/test/am1/scripts/setup.sourceforge A2_RealTimeServerStartup	step 4.	The script will take 2- 5 minutes to complete.		4/17/97
1.017	RTS	Observe in the UNIX window:For FOS version A.2P7:"DECOM IS READY TO RECEIVE I CHANNEL PACKETS..." and "DECOM IS READY TO RECEIVE Q CHANNEL PACKETS..."For FOS version A.2P7+ECT1 patch (aka 1.1.0d):"Creating a pptp coupler"	Note: The DECOM messages will appear several times, wait until they appear on two consecutive lines. (1.1.0d wait for "Creating a pptp coupler")There should not be any FORMAT Problem: xxx -socket error'. This is an indication that endpoints existed prior to startup.	The completion status and endpoint count are subject to change.		4/17/97
1.018	EOC	From Netscape in the SUN workstation room 2, verify that 48 endpoints are now found by submitting a blank form.BackSubmit	The number of endpoints found is 48.If the number of endpoints does not equal 48, be sure startup has completed, if so, use MyKill to clean out all Real Time Server (RTS) processes. Use Netscape with "foseoc6" in the "Entry ID" field to verify 0 endpoints on RTS. Use "ps			4/17/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
			-ef" to check for undesirable processes. Restart RTIS.			
1.019	EOC	Leave Data Server and Real Time Server windows open to view statuses.			4/17/97	
1.020	EOC	If the console will be used as a User workstation, close Netscape.	Warning: Netscape and the Event_Display window can not be open at the same time (12/05/96).		4/17/97	
1.021	UWS	Log onto an EOC User Work Station (preferably not msseoc2).Enter your user name.Enter your password.	UNIX Terminal window(s) open.		4/17/97	
1.022	UWS	Change directory and check for live processes.test (or cd /fos/test/am1/scripts/setup) ps -aux	Current processes will be displayed along with owner. There should be no undesirable processes. If so, run MyKill as owner of processes. Then attempt 'kill pid#'. Only use 'kill -9' is a last resort.		4/17/97	
1.023	UWS	Source the A2_UserStationStartup shell script from directory: /fos/test/am1/scripts/setup.s ource A2_UserStationStartup	The script will take 3 - 5 minutes to complete.The following six planning and scheduling windows will open: -Load Generator -Activity Definer -BAP Definer -Load_Manager -EOS Timeline -General Scheduler.A Control Window will open		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
1.024	UWS	Iconize the 6 planning and scheduling windows.	If there are not 6 planning and scheduling icons and the Control Window, first wait a little longer; while waiting check the number of processes on the user station via netscape (enter console name in "Entry ID" field. Correct number of user station endpoints is 8 ?) If unsuccessful startup, type MyKill, in user Station's UNIX window, kill undesirable processes, and restart user station only. If still unsuccessful call for help, you'll probably perform a complete shutdown and restart!	last.Netscape endpoint count at this point is 57.		4/17/97
1.025	UWS	Bring up Event_Display window.Click on "Tools..." button in Control Window,select Event_Display, and OK.	Event_Display may take a few minutes to appear.			4/17/97
1.026	UWS	Issue the ECL directive to connect to string 100:STRING CONNECT STRING=100 TLMTRY PE=ALL CONFIG=MIRROR	Event message: "Successfully connected to String 100." Approximately a 7 minute wait.			4/17/97
1.027	UWS	From a UNIX window,	This can be done while			4/17/97

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		different from the window used for User startup, run the SI&T userstation configuration recording script: /home/ivvtest3/scripts/tconfig.scr	waiting for the string to connectCreates a file called testconfig.			
1.028	UWS	From the UNIX window, rename the testconfig file.Mv testconfig <newname>			4/17/97	
1.029	UWS	Record the system configuration on the execution cover sheet.	System configuration recorded (while waiting for the string to connect).		4/17/97	
1.030	UWS	Enable telemetry data archiving.Note: Release A: Archiving is already enabled. Release B: The ECL directive ARCHIVE will control the archiving modes: ARCHIVE TLM =ENABLE <thm TYPE>	For Release A, no event message is expected. For Release B, an event message stating that telemetry archiving is enabled.		4/17/97	
2.001	GC	Request Ground Controller (GC) privilege.TAKE GROUNDCONTROL STRING=100	Ground Controller authority changed to appropriate user and console.		4/17/97	
2.002	GC	Open a page showing the ground configuration.Click TlmWins...Select cfgops click OK.	cfgops1 window displayed. GC connected to String 100,Operational mode		4/17/97	
2.003	GC	Attempt to create an existing string:STRING CREATE REALTIME	Error stating user trying to create a string that already exists.		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		SPACECRAFTID=AM1 DATABASEID=1_0 MODE=OPERATIONAL SERVER=1				
2.004	GC	Attempt to connect to a non-existent String.STRING CONNECT STRING=101 TYPE=STANDBY CONFIG=MIRROR	Error stating user trying to connect to a non-existent String		4/17/97	
2.005	GC	Attempt to create an illegal string;STRING CREATE REAL TIME SPACECRAFTID=RLM DATABASEID=1_0 MODE=OPERATIONAL SERVER=1	Error stating user trying to create an illegal string.		4/17/97	
2.006	GC	Display a Page of Housekeeping and Health & Safety data Enter PAGE EOC51ALPHA1 in the ECL command line.	Page is displayed.		4/17/97	
2.007	USER1	Open a page showing the ground configuration.Click TlmWins...Select cfgops1click OK.	cfgops1 window displayed.USER1 connected to String 100,Operational Mode		4/17/97	
2.008	USER1	Display the same telemetry data page as GC:Enter PAGE EOC51ALPHA1 in the ECL command line.	EOC51ALPHA1 page is displayed.		4/17/97	
2.009	ETS	Initiate transfer of Housekeeping data from EDOS with data that	Housekeeping data being transferred.		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		changes. File rt_hk scn.				
2.010	USER1 /GC	Verify Housekeeping and Health & Safety values update at both user stations.	Data display is identical and updated at same rate.		4/17/97	
2.011	GC	Create a string for test mode:STRING CREATE REALTIME SPACECRAFTID=AM1 DATABASEID=1_0MOD E=TEST SERVER=1	String 101 successfully created.		4/17/97	
2.012	GC	Connect to the Test mode string,STRING CONNECT STRING=101 TYPE=STANDBY CONFIG=MIRROR	Connection accepted.		4/17/97	
2.013	GC	Verify configuration on CFGOPS1 Page.	USER1 connected to String 101,Test Mode		4/17/97	
2.014	USER1	Connect to the Test mode string,STRING CONNECT STRING=101 TYPE=STANDBY CONFIG=MIRROR	Connection accepted.		4/17/97	
2.015	USER1	Verify configuration on CFGOPS1 Page.	USER1 connected to String 101,Test Mode		4/17/97	
2.016	GC	Create a string for training mode:STRING CREATE REALTIME SPACECRAFTID=AM1 DATABASEID=1_0 MODE=TRAINING SERVER=1	String 102 successfully created.		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
2.017	GC	Disconnect from the Operational mode string.STRING DISCONNECT STRING=100	Connection accepted.			4/17/97
2.018	GC	Connect to the Training mode string.STRING CONNECT STRING=102 TYPE=ALL CONFIG=MIRROR	Connection accepted.			4/17/97
2.019	GC	Close and reopen the telemetry data page Double-click the upper left-hand corner of the EOC51ALPHA1 window.Enter PAGE EOC51ALPHA1 in the ECL command line.	EOC51ALPHA1 page is displayed.			4/17/97
2.020	GC	Verify configuration on CFGOPS1 Page.PAGE cfgops1	USER1 connected to String 102,Training Mode			4/17/97
2.021	USER1	Create a dedicated logical string.STRING CREATE REAL TIME SPACECRAFTID=AM1 DATABASEID1_0 MODE=OPERATIONAL SERVER=TBD (workstation?)	Dedicated logical string created (# 001).	Release BOTMpg9-1,2		4/17/97
2.022	USER1	Connect to the dedicated logical string.STRING CONNECT STRING=001 TYPE=TBD	USER1 connected to string 001	Release B		4/17/97

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
2.023	USER-2	Attempt to connect to same STRING as USER1:STRING CONNECT STRING=001 TYPE=MIRROR				

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
3.004	UWS	After UWS killed, check for undesirable processes. ps -ax				4/17/97
3.005	UWS	Open any iconized processes, or pages that didn't close. Close the windows. Under the File menu heading select Quit.	Window closes.			4/17/97
3.006	UWS	Kill all undesirable processes - Processes with a /fos/test/aml/bin/... prefix and owner is not "root" (there may be others). Initially, as process owner, use MyKill to shutdown the process. If processes are still active use kill "pid" for each undesirable process.Type ps -ef again to verify.	Notes: The user may need to be logged in as the owner of the processes in order to kill them.			4/17/97
3.007	UWS	Bring up the FOS Homepage on Netscape(May be already open in mss2eoc SUN room 2):netscape	FOS Database Access Page displayed. If not automatically displayed, check Netscape's bookmarks. If no bookmark enter the url: http://198.118.199.20/FosDbHome.html	FOS Database Access Page		4/17/97
3.008	UWS	Verify no endpoints exist on UWS:Click on Nameserver DatabaseClick on Clear FormIn EntryID field Enter: fos#oe (where	"Total matches = 0".Note: If any endpoints exist recheck for live processes/endpoints on the UWS using ps -ax . They			4/17/97

Step ID	Station	Actions	Results	Comments	Verified Regs.	Last Modified
		# is UWS number)Click on Submit.	must all be removed/killed prior to system startup. As a last resort use Kill -9 "pid".			
3.009	RTS	Bring down Real Time Server (foseoc6). In the UNIX window where the RTS was initiated, enter:MyKill	Wait 1-5 minutes		4/17/97	
3.010	RTS	After RTS killed, check for undesirable processes. ps -ef			4/17/97	
3.011	RTS	Kill all undesirable processes - Processes with a/fos/test/aml/bin/... prefix and owner is not "root" (there may be others).Initially, as process owner, use MyKill to shutdown the process. If processes are still active use kill "pid" for each undesirable process.Type ps -ef again to verify.	Notes: The user may need to be logged in as the owner of the processes in order to kill them.		4/17/97	
3.012	RTS	Bring up the FOS Homepage on Netscape(May be already open in mss2eoc SUN room 2):netscape	FOS Database Access Page displayed. If not automatically displayed, check Netscape's bookmarks. If no bookmark enter the url: http://198.118.199.20/FosDbHome.html		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		on RTS:Click on Nameserver DatabaseClick on Clear FormIn EntryID field enter: foseoc6Click on Submit.	If any endpoints exist recheck for live processes/endpoints on the Real Time Server using ps -ef . They must all be removed/killed prior to system startup. As a last resort use Kill -9 "pid".			
3.014	DS	Bring down Data Server (fosec7). In the UNIX window where the RTS was initiated, enter:MyKill	Wait 1-5 minutes.		4/17/97	
3.015	DS	After DS killed, check for undesirable processes. ps -ef			4/17/97	
3.016	DS	Kill all undesirable processes - Processes with a /fos/test/aml/bin/... prefix and owner is not "root" (there may be others).Initially, as process owner, use MyKill to shutdown the process. If processes are still active use kill -USR1 "pid" for each active process, then use kill -9 "pid" for each undesirable process.Type ps -ef again to verify.	Notes: "kill -USR1" saves data created since the Data Server was brought up. Use "kill -9" only after "kill -USR" on the Data Server or Real Time Server; or data may be lost. The user may need to be logged in as the owner of the processes in order to kill them.		4/17/97	
3.017	DS	Bring up the FOS Homepage on Netscape(May be already open in mss2eoc SUN	FOS Database Access Page displayed. If not automatically displayed, check Netscape's		4/17/97	

Step ID	Station	Actions	Results	Comments	Verified Reqs.	Last Modified
		room 2):netscape	bookmarks. If no bookmark enter the url: http://198.118.199.20/FosDbHome.html			
3.018	DS	Verify no endpoints exist on DS:Click on Nameserver DatabaseClick on Clear FormIn EntryID field enter: foseoc7Click on Submit.	"Total matches = 0".Note: If any endpoints exist recheck for live processes/endpoints on the Data Server using ps -ef . They must all be removed/killed prior to next system startup.			4/17/97
3.019	EOC	Verify no endpoints exist on FOS:Click on Nameserver DatabaseClick on Clear FormClick on Submit.	"Total matches = 0".Note: If any endpoints exist recheck for live processes/endpoints on the User Work Stations, Real Time Server, and Data Server using ps -ef or ps -aux. All processes must be removed/killed prior to system startup.			4/17/97
4.001		Verify EOC-8140#A			EOC-8140#A,	4/17/97
4.002		Verify EOC-9010#A			EOC-9010#A,	4/17/97
4.003		Verify EOC-9020#A			EOC-9020#A,	4/17/97
4.004		Verify EOC-9025#A			EOC-9025#A,	4/17/97
4.005		Verify EOC-9110#A			EOC-9110#A,	4/17/97